

# Chapter 4

## MANAGEMENT AREA DESCRIPTIONS

The DBNF is divided into four Management Areas (MA) based on the Forest's four main river basins. These are the Licking River MA, the Middle Kentucky River MA, the Upper Kentucky River MA, and the Upper Cumberland River MA (Figure 4 - 1). The areas differ socially, physiographically and biologically as well as hydrologically. The Management Areas have enough difference in the ecological classification system to make it easier or less expensive to do some activities in some Management Areas and more expensive or more difficult in others. The amount and distribution of Proposed Endangered, Threatened and Sensitive is different between Management Areas. The access, visitor use and the economic development of management areas are different. The management areas will be used primarily for establishing monitoring protocols, track accomplishments and identify differences in effectiveness of management activities. The cost and ease of doing management activities may influence the amount of activities that will occur in each Management Area.

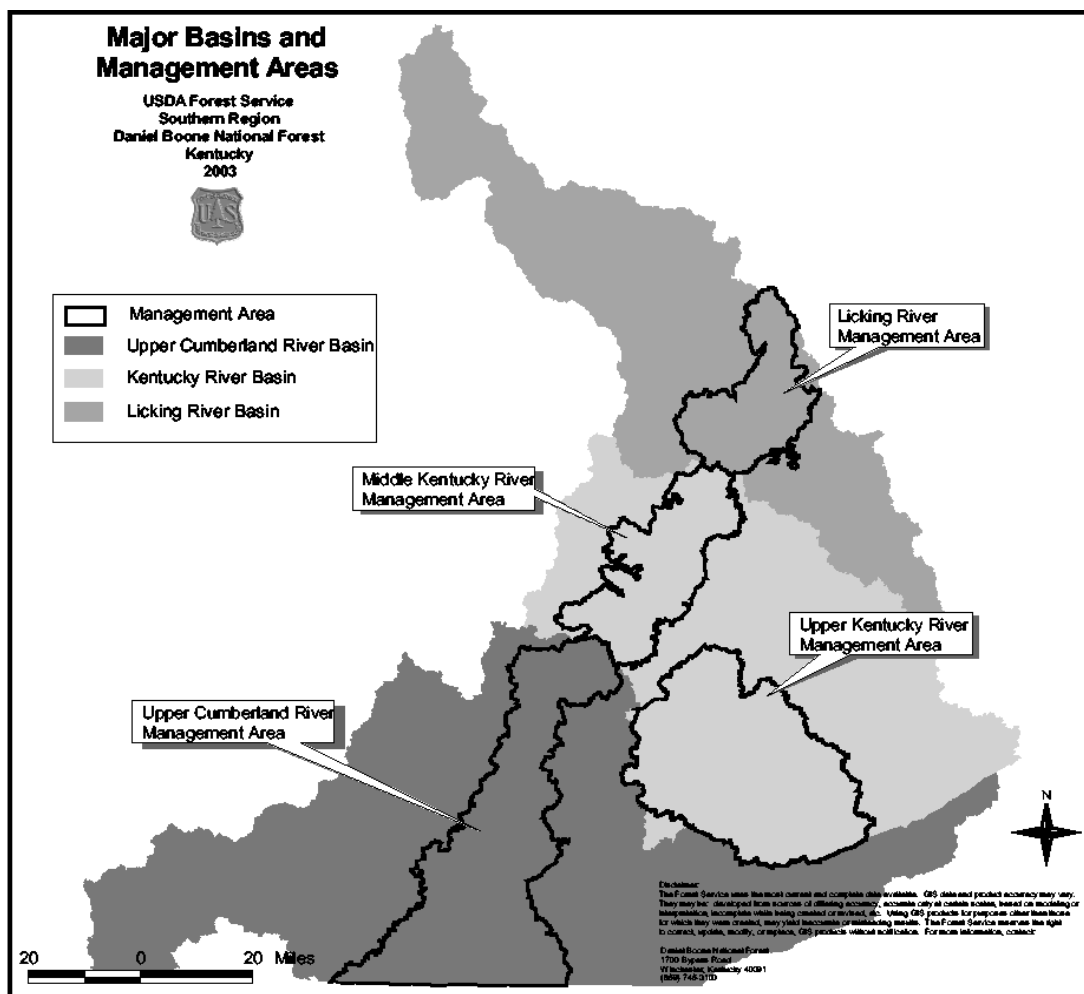


Figure 4 - 1. Management Areas and associated watersheds.

## LICKING RIVER MANAGEMENT AREA

This area contains 117,934 acres of land managed by the Daniel Boone National Forest. The Licking River MA includes six landtype associations (LTAs) in two ecological sections and three ecological subsections. Physiographically, these LTAs range from areas of shallowly dissected rolling plateau without escarpment, to areas of deeply dissected plateau with escarpment. Karst features are uncommon in this MA. River bottoms can be as much as a mile wide. Soils range from shallow to deep silt and silt clay loams on uplands to generally deep silty clay and clay loams on slopes. River bottom soils include clayey and silty clay loams. The vegetation on the rolling plateau and upper edge of the escarpment is dominated by oak forest. Mixed mesophytic forest dominates much of the vegetation below the escarpment plateau. River bottom forests are primarily flood plain forests. A few plant and animal PETS species and habitat for Conservation species occur in this MA. About one-third of the plant life benefits from periodic fire and is usually associated with open oak forest. A few rare species can be found among the aquatic fauna of this MA. Approximately 17 percent of the lands managed by the DBNF are within the Licking River MA.

The broad valleys provide sites for agricultural production, communities and scattered businesses. Travel through the northern part of the area is generally within these wide valleys, which provide a pastoral setting with naturally appearing forested rolling hills behind. Roads are found more commonly along the ridge-tops in the southern half of this MA. Creation of openings, new construction, and other alterations to the valley landscape do not significantly alter the form line and texture of the area. Increased residential development on the hillsides and hilltops is changing the viewshed and altering the existing character of the area particularly in the Cave Run Lake area.

## MIDDLE KENTUCKY RIVER MANAGEMENT AREA

This area contains 83,247 acres of land managed by the Daniel Boone National Forest. The Middle Kentucky River MA includes eight landtype associations (LTAs) in one ecological section and three ecological subsections. Physiographically, these LTAs are primarily areas of deeply dissected plateau with escarpment, small areas of shallowly dissected rolling plateau. Karst features are frequent along the western portion of this MA. River bottoms are generally narrow with some flood plain development. Soils range from shallow to deep silt and silt clay loams on uplands to generally deep silty clay and clay loams on slopes. River bottom soils include clayey and silty clay loams. The vegetation on the rolling plateau and upper edge of the escarpment is dominated by oak forest, but included areas of southern yellow pine domination prior to the recent southern pine beetle epidemic. Mixed mesophytic forest dominates much of the vegetation below the escarpment plateau. River bottom forests are a mix of flood plain and riverfront forests. Several plant and animal PETS species and habitat for Conservation species occur in this MA. About one-third of those plants benefits from periodic fire and is usually associated with open southern yellow pine or oak forest. The aquatic fauna of this MA includes few rare species. Approximately 12 percent of the lands managed by the DBNF are within the Middle Kentucky River MA.

Travel through this area is along both the flat ridge-tops and the narrow to wider (up to a quarter mile) bottoms. The landscape changes from scattered homes and businesses in and out of forests in the narrower valleys and ridge-tops to a pastoral setting found in the wider valleys and plateau. The effects of clearing, building, and timber harvesting can be significant to the form line and texture of

the surrounding area or blend easily with the existing activities in the area depending on the location within this section.

## **UPPER CUMBERLAND RIVER MANAGEMENT AREA**

This area contains 346,864 acres of land managed by the Daniel Boone National Forest. The Upper Cumberland River MA includes seven landtype associations (LTAs) in two ecological sections, and three ecological subsections. Physiographically, these LTAs range from areas of shallowly dissected rolling plateau without escarpment, to areas of deeply dissected plateau, some with and some without escarpment. Karst features are abundant in some areas along the western edge of the MA. River bottoms are generally narrow and with limited flood plain. Soils range from shallow to deep sandy loams and silt loams on uplands to generally deep silty clay loams on slopes. Most river bottom soils are clay loams. Prior to southern pine beetle epidemic of the late 1990s, southern yellow pine dominated much of the vegetation on the rolling plateau and upper edge of the escarpment. Much of the vegetation below the escarpment and in the deeply dissected plateau is dominated by mixed mesophytic forest. River bottom forests are primarily narrow bands of river front forest. The Forest's highest concentration of PETS species occurs in this MA. About 50 percent of the PETS and Conservation plant species benefit from periodic fire and are usually associated with open southern yellow pine or southern yellow pine-oak forest. The aquatic fauna of this MA is among the richest in the nation, and includes a higher proportion of federally listed mussels and fish than any other MA on the forest. Approximately 50 percent of the lands managed by the DBNF are within the Upper Cumberland River MA.

Travel through this area is along the broad, flat plateau tops and the narrow to wider (up to a half mile) bottoms. The landscape changes from scattered homes and businesses in and out of forests in the narrower valleys and ridge-tops to a pastoral setting found in the wider valleys and plateau. The effects of clearing, building, and timber harvesting can be significant to the form line and texture of the surrounding area or blend easily with the existing activities in the area depending on the location within this section.

## **UPPER KENTUCKY RIVER MANAGEMENT AREA**

This area contains 145,683 acres of land managed by the Daniel Boone National Forest. The Upper Kentucky River MA includes five landtype associations (LTAs) in two ecological sections, and three ecological subsections. Physiographically, these LTAs are predominantly areas of deeply dissected plateau without escarpment. A small area of escarpment occurs along Pine Mountain at the eastern edge of the MA. Karst features are limited to Pine Mountain. River bottoms are moderately wide with limited to extensive flood plains. The smaller stream valleys tend to be much narrower with less developed flood plains. The slopes in this MA are generally longer than in the other MAs. Soils range from shallow to deep sandy loams and silt loams on uplands, to generally deep silty clay loams on slopes. Most river bottom soils are silty clay and clay loams. Oak dominates vegetation on the dissected plateau while mixed mesophytic forest dominates vegetation on lower and north slopes. River bottom forests are primarily flood plain forest. Several Sensitive and Conservation species occur in Kentucky only in and near this MA. Most of the Sensitive and Conservation plant species benefit from periodic fire and are usually associated with open oak forest. Several higher elevation

mammals, birds, and snails occur in this MA. Only some of the birds occur elsewhere on the Forest. This portion of the Kentucky River basin is the last stronghold for a number of Kentucky State Nature Preserves Commission listed “threatened or endangered” and Forest Service “sensitive” aquatic animal species. Approximately 21 percent of the lands managed by the DBNF are within the Upper Kentucky River MA.

Most of the valleys are narrow, as are the mountaintops. Few roads follow the mountaintops. Homes are scattered throughout the forested landscape along the valley roads. Whenever the valleys broaden to form wider flood plains, communities can be found. There is limited land for agriculture although many homes have small garden plots and pastures. Changes to the naturally appearing forested area are readily apparent if close to the valley floor. Views are limited by vegetation and terrain. Access through this area is slow and limited by the terrain.

**Table 4 - 1. The distribution of Prescription Area acreage by Management Area (MA).**

<b>Prescription Area</b>	<b>LICKING RIVER</b>	<b>MIDDLE KENTUCKY RIVER</b>	<b>UPPER CUMBERLAND RIVER</b>	<b>UPPER KENTUCKY RIVER</b>
<b>1.A. Research Natural Area<sup>1</sup></b>	0	308	189	161
<b>1.C. Cliffline Community</b>	9,060	19,525	63,433	19,187
<b>1.E. Riparian Corridor</b>	31,907	20,888	80,958	21,626
<b>1.I. Designated Old-Growth</b>	4,521	1,226	7,558	1,899
<b>1.J. Significant Bat Caves</b>	751	2,783	2,474	107
<b>1.K. Habitat Diversity Emphasis</b>	70,858	33,164	175,835	96,034
<b>2.A. Clifty Wilderness</b>	0	12,646	0	0
<b>2.B. Beaver Creek Wilderness</b>	0	0	4,791	0
<b>3.B. Large Reservoirs</b>	13,850	0	16,823	0
<b>3.C.1. Red River National W&amp;S River: Wild River Segment</b>	0	683	0	0
<b>3.C.2. Proposed W&amp;S River: Marsh Creek- Wild River</b>	0	0	1,244	0
<b>3.C.3. Red River National W&amp;S River: Recreational River Segment</b>	0	1,440	0	0
<b>3.C.4. Proposed W&amp;S River: Cumberland River, War Fork Creek, Rockcastle River- Scenic Rivers</b>	0	1,466	5,622	0
<b>3.C.5. Proposed W&amp;S River: Rock Creek and Marsh Creek Recreational Rivers</b>	0	0	6,184	0
<b>3.E. Red River Gorge Geological Area (Without Clifty Wilderness)<sup>2</sup></b>	0	16,042	0	0
<b>3.F. Natural Arch Scenic Area</b>	0	0	1,065	0
<b>3.H.2. Ruffed Grouse Emphasis</b>	4,728	0	5,807	0
<b>5.B. Source Water Protection<sup>3</sup></b>	12,563	1,208	19,977	266

<sup>1</sup>1.A. 189 acres in the existing Rock Creek RNA; 469 acres in proposed Elisha Branch and Tight Hollow RNAs.

<sup>2</sup>3.E. Red River Gorge Prescription Area does not include Clifty Wilderness.

<sup>3</sup>5.B. Source Water Protection Zone 1 and Zone 2.